

CONTACT OR PROXIMITY PRINTING USING A MAGNIFIED MASK IMAGE

ABSTRACT

5 [0083] Improvements in the fabrication of integrated circuits are driven by the decrease of the size of the features printed on the wafers. Current lithography techniques limits have been extended through the use of phase-shifting masks, off-axis illumination, and proximity effect correction. More recently, liquid immersion lithography has been proposed as a way to extend even further the limits of optical lithography. This invention
10 described a methodology based on contact or proximity printing using a projection lens to define the image of the mask onto the wafer. As the imaging is performed in a solid material, larger refractive indices can be obtained and the resolution of the imaging system can be increased.